

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Withdrawn) A method for producing a hyperplastic variant plant, comprising functionally inactivating expression of a plant d-like cyclin inhibitor gene in a plant wherein a hyperplastic variant is produced, the hyperplasticity being relative to a wild-type plant.
2. (Withdrawn) The method of claim 1, wherein the plant D-like cyclin inhibitor gene is a *BRO* gene.
3. (Withdrawn) The method of claim 1, wherein the genome of said hyperplastic variant plant comprises a structurally disrupted plant D-like cyclin inhibitor gene.
4. (Withdrawn) The method of claim 1, wherein an antisense or inverted repeat polynucleotide functionally inactivate expression of the plant D-like cyclin inhibitor gene in the plant.
5. (Withdrawn) The method of claim 1, wherein the functionally inactivated plant D-like cyclin inhibitor gene is structurally disrupted by homologous recombination with a targeting construct.
6. (Withdrawn) A polynucleotide targeting construct comprising a sequence that is homologous to a sequence present in a plant D-like cyclin inhibitor gene and which, when integrated at the corresponding plant D-like cyclin inhibitor gene locus, functionally inactivates plant D-like cyclin inhibitor protein expression.

7. (Withdrawn) A polynucleotide targeting construct of claim 6, wherein said plant D-like cyclin inhibitor gene is a *BRO* gene.
8. (Withdrawn) A hyperplastic plant having a functionally inactivated plant D-like cyclin inhibitor gene, the hyperplasticity being relative to a wild-type plant.
9. (Withdrawn) The hypertrophic plant of claim 8, wherein the plant D-like cyclin inhibitor gene is a *BRO* gene.
10. (Withdrawn) A method for increasing the growth rate of a plant, comprising functionally inactivating expression of a plant D-like cyclin inhibitor gene in a plant wherein the growth rate of the plant is increased relative to a wild-type plant of the same species having the functional plant D-like cyclin inhibitor gene.
11. (Withdrawn) The method of claim 10, wherein the expression of the plant D-like cyclin inhibitor is functionally inactivated by an antisense or an inverted repeat polynucleotide.
12. (Withdrawn) A method for increasing the proportion of dividing cells in a plant cell population comprising:
exposing said population of cells to an inhibitor of a plant D-like cyclin inhibitor in an amount sufficient to increase the proportion of dividing cells to non-dividing cells relative to said proportion in a population of untreated cells.
13. (Withdrawn) The method according to claim 12, wherein the cell population comprises protoplasts, seeds, root cells, meristem cells or leaf cells.
14. (Withdrawn) An inhibitor of a plant D-like cyclin inhibitor which comprises an oligonucleotide that specifically binds to DNA encoding BRO4 or an RNA transcribed therefrom and inhibits expression of BRO4 protein.

15. (Currently amended) An isolated nucleotide sequence which encodes the plant D-like cyclin inhibitor protein designated BRO4 as depicted in SEQ ID NO: 8 initiating at amino acid residue position 13 and terminating at amino acid residue position 208.

16. (Currently amended) The isolated nucleotide sequence of claim 15, wherein the nucleotide sequence is that depicted in SEQ ID NO: 7.

17. (New) A vector comprising the nucleotide sequence of claim 15 or its reverse complement.

18. (New) The vector according to claim 17, wherein the vector further comprises a selectable marker.

19. (New) The vector according to claim 17, wherein the vector further comprises an operably linked promoter capable of functioning in a plant cell.

20. (New) The vector according to claim 19, wherein the promoter is CaMV 35S, tomato E8, patatin, ubiquitin, mannopine synthase, rice *actin I*, soybean seed protein glycinin (*GlyI*), soybean vegetative storage protein, or the CaMV 35S or mannopine synthase hybrid promoter MAC.

21. (New) A host cell comprising the vector of claim 17.

22. (New) A host cell comprising the vector of claim 18.

23. (New) A host cell comprising the vector of claim 19.

24. (New) A host cell comprising the vector of claim 20.